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is RESEARCH your job?

Careers in human nutrition and home economics

Agricultural Research Service, U. S. Department of Agriculture
Washington 25, D. C.

These 14 pictures were taken in the laboratories and offices of the United States Department of Agriculture for research in human nutrition and home economics. They show the variety and importance of the research and give some idea of kinds of training that are useful to students considering research careers. They were selected from the color filmstrip, Is research your job, No. C-37.* The pictures are available in black and white only, in two sizes. The enclosed order blank gives costs and instructions on how to order.



1. This young specialist in experimental cookery is helping to classify potatoes as to suitability for various cooking methods. She is putting French fried strips through an electric shearing machine to find out how many ounces of pressure it takes to cut through each sample. This is one test of tenderness. The samples are from potatoes of different varieties, and grown in different parts of the country.

Claire Endersbee, shown in the picture, has a B. S. in home economics from Iowa State College. She majored in experimental cookery.



2. Rats, like people can have high blood pressure. In this picture, a rat with its head in a hood is having its blood pressure measured--in studies to learn relationships between diet and premature aging. The rat's blood pressure can be measured quite accurately with a kind of electric eye, which shows when the amount of light passing through the rat's foot is changed, as the flow of blood is cut off and restored by means of the blood pressure cuff on the animal's leg.

Mrs. Elizabeth Callison, nutrition physiologist, joined the staff with considerable training and experience. Her background includes a degree from Oberlin College; a Master's degree from Yale University School of Medicine and teaching work there; graduate work at Harvard Medical School; and research at the Carnegie Nutrition Laboratory in Boston.

*Filmstrip can be ordered from Photo Lab., Inc., 3825 Georgia Avenue, N. W.
Washington 11, D. C. Cost.....\$ 4.00
Photo Index HNHE No. 114



3. This laboratory is set up for quantity cookery research. A home economist, left, and a scientific aide are preparing cherry and pumpkin pie in experiments to gain new information on use of fats, and the interchangeability of fats and oils in developing large-scale recipes for bread, cake, and pastry.

Left: Ruth Seaquist, has a B. S. degree from George Washington University. Right: Evelyn West, graduated from the University of Maryland, where she studied food and nutrition.



4. These two chemists are performing 2 widely separated steps in determining the amount of pantothenic acid--one of the newer B-vitamins--in food samples. And they are using one of the newer and quicker methods--involving microbiology. The microorganisms John is adding to the tubes are known to require the particular vitamin being tested. The tiny one-celled plants will multiply and produce lactic acid in proportion to the amount of pantothenic acid in the food.

Mrs. Elizabeth Zook, in this picture, is a chemistry graduate from the University of Rhode Island. John Hoff-sommer is a chemistry student at the University of Pennsylvania. He was employed as a temporary laboratory aide during his summer vacation.



5. Like Jack Spratt and his wife, who divided the fat and lean, these laboratory workers are concerned with separable fat and lean portions of beef. The goal is to learn more about nutritional contributions of the fat and the lean in raw beef for roasts. A worker at left is cutting fat away from lean. A laboratory aide at right is grinding the portions separately to obtain samples for chemical analysis. And a scientific aide, center is titrating solutions, as part of the procedure to learn how much protein there is in the fat and lean samples.

The scientific aide, Mrs Elizabeth Nipper, is a graduate of Meredith College in North Carolina, where she studied biology and chemistry.



6. Important work can be done with rats, because these small animals' nutritional needs are like human beings' to a considerable extent. These two nutrition scientists are using rats to learn what happens when a single change is made in a controlled diet--such as replacing sugar with starch. They are studying differences change in diets makes in amounts of nitrogen that the animals store and lose, and changes in body weight of animals during the experimental period.

At left is Mary Marshall, who majored in home economics and biology at Clark College and received a Master's degree in nutrition from Iowa State College. At right is Madelyn Womack, who majored in chemistry at Texas State College for Women. She took graduate work at the University of Illinois and got M. S. and Ph. D. degrees, specializing in biochemistry.

7. This clothing research specialist is making comparisons on points of good and poor quality in men's shirts. What she is learning about sizes, seams, buttonholes, and other construction features, plus facts about materials, will provide a basis for a practical buying guide booklet to aid consumers in recognizing those qualities that give full value for money spent.

Shirley Johnstone pictured here is a graduate of Russell Sage College in New York, where she studied clothing and home economics education.



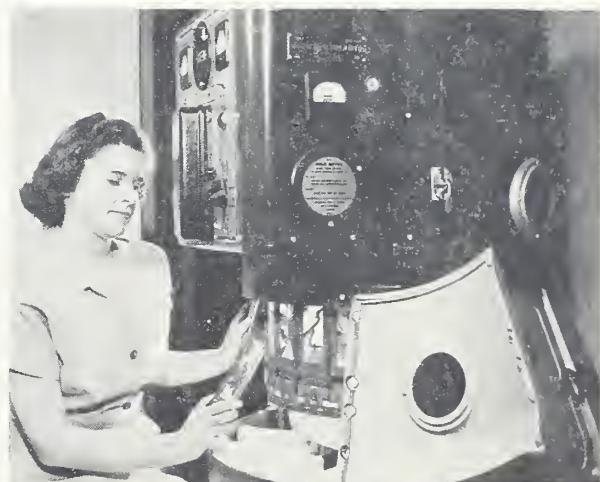
8. This textile specialist is using an abrasion machine to see how much rubbing it takes to wear holes through suiting of wool materials. Her supervisor, a technologist, is inspecting the samples. From these and other tests of fabric--chemical and physical--come facts that are used in preparing buying guide leaflets for homemakers, to aid in selecting fabrics and clothes and household goods made from fabrics.

Operating the machine is Lois Fensler. She majored in textiles when getting her B. S. degree in home economics at Michigan State College. The textile technologist, Roy Ward, has a B. S. in textiles from the University of North Carolina, and did textile research in the Quartermaster Corps of the Department of Defense.



9. This scientific aide is fitting fabric samples into a Fade-Ometer, to find out how well they resist fading and weakening from the artificial sunlight.

Operating the machine is Janet Stransky, University of Maryland graduate, who majored in textiles and clothing.



10. Questions have been raised as to how much disinfectant a homemaker needs to use when she washes sickroom bedding or infants' clothes. These bacteriologists are finding out how effectively bacteria are destroyed when a given strength of disinfectant is applied. They are subculturing cotton fabric on which the bacteria have been planted.

Mildred Latlief was graduated from the University of Maryland, where she studied bacteriology and chemistry.

John Friedl was graduated from Marquette University and had done considerable research on disinfectants before he joined the staff.





11. The space needed for storing household linens and bedding is being tried out here, with adjustable shelving and devices for measuring hand space, so that items can be placed and removed smoothly. Providing research-based facts on storage adequate for family needs is part of the work aimed toward improving the convenience and comfort of farm dwellings.

Margaret Ann Richards, left, is a University of Maryland graduate and majored in textiles and clothing.

Genevieve Kent, right, was graduated in home economics education from Madison College in Virginia. She worked for a while at the National Bureau of Standards.



12. Principles of work simplification are demonstrated in this step-saving kitchen, which was designed, built, and tested by the housing staff. One of the housing specialists is seen explaining a storage feature to visitors.

Avis Woolrich, pictured, has a B. S. degree from the University of Texas and a M. S. with a major in home management from the University of Tennessee.



13. This part of the staff is mainly concerned with reporting the kind of living that families get and how well fed the Nation's families are--in both cities and rural areas. As one source of information, staff members make field surveys, arranging interviews with selected homemakers and following through to gather the facts and figures.

Mary Ann Moss, the interviewer in this picture, is a home economics graduate from Western State College in Kentucky.



14. Every autumn, Extension leaders from the States come to Washington for a conference on the economic outlook, and family economists of the Department meet with home management specialists to present the latest facts and figures on rural family living. Here are speakers at a session of the Outlook Conference discussing charts and a chart book, for management specialists of the Extension Service.

The family economist explaining the chart on earnings of farm women is Jean Pennock, who has B. A. and M. A. degrees from Connecticut College. Ready to explain the chart book is Margaret Brew, who studied home economics and economics and has her Ph. D. from the University of Chicago. Barbara Reagan, with her back to the camera, majored in home economics at the University of Texas and earned her Ph. D. in economics at Radcliffe.

